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purposes. However, the use of the magazine sprinkling system shall not interfere with the simultaneous use of the fire main system.

(b) *Magazine vans.* (1) A manual control sprinkler system shall be installed in each magazine van. The system shall be connected to the nearest fire main outlet by jumper hose. The hose shall be protected from physical damage by a grating or similar arrangement. The fire station valve shall serve as the sprinkler control valve.

(2) Sprinkler systems shall be designed in accordance with the requirements of part 76 of Subchapter H (Passenger Vessels) of this chapter, except that the system capacity shall be sufficient to provide a coverage of 0.4 gallon per minute per square foot of overhead area.

[CGFR 67-83, 33 FR 1151, Jan. 27, 1968, as amended by CGD 82-063b, 48 FR 4783, Feb. 3, 1983]

§ 194.10-35 Labeling.

(a) Labeling shall be in 3-inch block type lettering. Letters shall be red or white, whichever provides the better contrast against the background. On small chests the labeling size may be reduced to that consistent with the size of the chest so that the inscription may be placed in its entirety on the side or top.

(b) The access door to magazines and magazine vans shall bear the inscription:

MAGAZINE
KEEP OPEN LIGHTS AND FIRE AWAY
KEEP DOOR CLOSED
REMOVE MATCHES AND LIGHTERS
PRIOR TO ENTERING

(c) Magazine chests shall be marked in a conspicuous location, preferably the top, with the inscription:

MAGAZINE CHEST
KEEP OPEN LIGHTS AND FIRE AWAY

(d) Magazine chests used for blasting caps, detonators, or boosters shall be marked in a conspicuous location with the inscription as appropriate:

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BLASTING CAP LOCKER

or

DETONATOR LOCKER

or

BOOSTER LOCKER

KEEP OPEN LIGHTS AND FIRE AWAY

(e) Magazine van, unless specifically approved as a portable magazine under provisions of 49 CFR 176.137 shall bear the additional statements on each side:

MAGAZINE

WARNING

DO NOT LIFT WITH CONTENTS

(f) Control locations for magazine sprinkler systems, in addition to the operating instructions required by § 76.20-20 of Subchapter H (Passenger Vessels) of this chapter shall bear the inscription:

MAGAZINE SPRINKLER CONTROL

[CGFR 67-83, 33 FR 1151, Jan. 27, 1968, as amended by CGD 86-033, 53 FR 36027, Sept. 16, 1988; CGD 97-057, 62 FR 51051, Sept. 30, 1997]

Subpart 194.15—Chemistry Laboratory and Scientific Laboratory

§ 194.15-1 General.

(a) Chemical and scientific laboratories shall be considered service areas, and as such shall be subject to the applicable requirements of § 190.07-10(d).

(1) Incombustible materials shall be used, insofar as is reasonable and practicable, for permanently installed laboratory furnishings and equipment, such as desks, file and storage cabinets, waste paper baskets, work benches, chair frames, etc. Working surfaces where chemical stores are used shall be of incombustible material.

(2) Combustible materials may be used for other working surfaces and for temporary furnishings and equipment installed to facilitate a specific scientific mission.

(b) Storage of all equipment, materials, etc., and cleanliness shall be consistent with sound laboratory practices. All items shall be securely stowed.

(c) Provision shall be made for rapid removal of chemical spills and protection of the deck. In areas where chemicals will commonly be used, the deck shall be covered with a nonskid masonry or other suitably resistant material so fashioned that spillage will be contained and easily removed.

(d) The access doors to the laboratory shall bear the inscription "Chemical Laboratory", or "Scientific Laboratory", in lettering meeting requirements of § 194.10-35(a).

§ 194.15-3 Responsibility.

(a) With the knowledge and approval of the master, the senior member of the scientific party embarked may supervise the safety and operation of the chemical laboratory.

(b) The laboratory supervisor shall:

(1) Maintain the highest standards of safe working conditions.

(2) Provide safeguards against hazardous undertakings.

(3) Educate personnel working in the laboratory spaces to be alert for hazards.

§ 194.15-5 Ventilation.

(a) Operations, reactions or experiments which produce toxic, noxious or corrosive vapors shall be conducted under a suitably installed fume hood. The fume hood shall be equipped with an independent power exhaust ventilation system which terminates so as to prevent fumes from entering other portions of the vessel. The exhaust system of the fume hood shall be compatible with the ventilation system of the laboratory to prevent fumes from backing-up within the fume hood system. The terminals shall be equipped with acceptable flame screens.

(b) Chemical laboratories shall be equipped with power ventilation system of the exhaust type serving the entire laboratory for use in the event of spills or other emergencies. The system shall have a capacity sufficient to effect a complete change of air in not more than 4 minutes based upon the volume of the compartment.

(1) Power ventilation units shall have nonsparking impellers and shall not produce a source of vapor ignition in either the compartment or the ventila-

tion system associated with the compartment.

(2) The power ventilation system shall be interlocked with any other ventilation or air-conditioning system serving the laboratory in a manner to prevent the circulation of vapors to other spaces.

(3) This ventilation system shall be independent of any other ventilation system in the vessel. It shall serve no other space. It shall be of watertight construction.

(4) Ventilation exhaust outlets shall terminate more than 6 feet from any opening to the interior part of the vessel and from any possible source of vapor ignition.

(5) The control for the power ventilation system shall be conveniently located and marked in a manner to clearly identify the purpose of the control.

(c) Ventilation of air conditioning systems serving the chemical laboratory shall be designed so that air cannot be recirculated into an accommodation space.

§ 194.15-7 Fire protection.

(a) If a fixed or semiportable fire-fighting system is installed, it shall meet the applicable requirements in part 193 of this subchapter. Other fire-fighting systems will be given special consideration by the Commandant.

(b) Portable fire extinguishers are required in accordance with Table 193.50-10(a) of this subchapter.

§ 194.15-9 Storage.

(a) Chemical stores mentioned in § 194.05-3 may be stored in small working quantities in the laboratory provided their containers are labeled in accordance with § 194.05-5(a).

(b) Chemical stores in greater than small laboratory working quantities shall be stored in approved containers in the chemical storeroom as prescribed in § 194.05-1(b).

(c) All material stored in any laboratory shall be securely stowed for sea with due consideration for chemical compatibility and safety standards.

§ 194.15-11 Flushing systems.

(a) Working spaces in which chemical stores are used shall be equipped with a fresh water supply shower.